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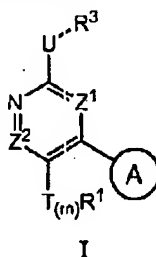
APR 11 2007

Applicants: Francois Maltais et al.
Application No.: 10/798,766

AMENDMENTS TO THE CLAIMS

Please replace all prior versions and listings of claims with the amended claims as follows:

1. (Original) A compound of formula I:



or a pharmaceutically acceptable salt thereof, wherein:

Ring A is a pyrrole ring optionally substituted at the 1-position with R^2 and substituted with:

- (i) two R^y groups, and
- (ii) QR^2 ;

R^z is R, C(O)R, C(O)OR, or SO_2R ;

each R^y is independently selected from an optionally substituted C_{1-6} aliphatic group, Ar, CN,

NO_2 , halogen, $N(R)_2$, SR, or OR, provided that both R^y groups are not simultaneously Ar;

Z^1 and Z^2 are each independently selected from N or CR^x ;

each R^x is independently selected from R, halogen, CN, NO_2 , OR, SR, $N(R)_2$, C(O)R, or CO_2R ;

U is selected from a valence bond, -O-, -S-, -N(R)-, or a C_{1-6} alkylidene chain wherein up to

two methylene units of U are optionally and independently replaced by -O-, -S-, -SO-,

- SO_2 -, -N(R) SO_2 -, - $SO_2N(R)$ -, -N(R)-, -CO-, - CO_2 -, -N(R)CO-, -N(R)C(O)O-,

-N(R)CON(R)-, -N(R) $SO_2N(R)$ -, -N(R)N(R)-, -C(O)N(R)-, or -OC(O)N(R)-;

T is a valence bond or a C_{1-6} alkylidene chain;

m is zero or one;

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R^1 is selected from CN, halogen, OR^6 , SR^6 , $N(R)R^6$, or R^4 ;

Q is selected from a valence bond, $-C(O)N(R)-$, $-SO_2N(R)-$, $-SO_2-$, $-N(R)C(O)N(R)-$,
 $-N(R)C(O)-$, $-N(R)SO_2-$, $-N(R)SO_2N(R)-$, $-N(R)C(O)O-$, $-C(O)-$, or $-C(O)O-$;

R^2 is selected from halogen, CN, $(CH_2)_yR^5$, $(CH_2)_yCH(R^5)_2$, $(CH_2)_yCH(R^7)CH(R^5)_2$,
 $(CH_2)_yN(R^4)_2$, or $N(R^4)(CH_2)_yN(R^4)_2$;

y is 0-6;

each Ar is independently selected from an optionally substituted 3-7 membered saturated,
 partially unsaturated, or fully unsaturated monocyclic ring having 0-4 heteroatoms
 independently selected from nitrogen, oxygen, or sulfur, or an optionally substituted 8-10
 membered saturated, partially unsaturated, or fully unsaturated bicyclic ring having 0-4
 heteroatoms independently selected from nitrogen, oxygen, or sulfur;

R^3 is selected from R, Ar, $(CH_2)_yCH(R^7)R^5$, CN, $(CH_2)_yCH(R^7)CH(R^5)_2$, or
 $(CH_2)_yCH(R^7)N(R^4)_2$;

each R is independently selected from hydrogen or an optionally substituted C_{1-6} aliphatic
 group, or:

two R on the same nitrogen atom are taken together with the nitrogen atom attached thereto
 to form a 4-8 membered saturated, partially unsaturated, or fully unsaturated ring having
 1-4 heteroatoms independently selected from nitrogen, oxygen, or sulfur;

each R^4 is independently selected from R^6 , $C(O)R^6$, CO_2R^6 , $CON(R^6)_2$, SO_2R^6 ;

each R^5 is independently selected from R^6 , OR^6 , CO_2R^6 , $(CH_2)_yN(R^4)_2$, $N(R^4)_2$, $N(R)C(O)R^6$,
 $N(R)CON(R^6)_2$, $CON(R^6)_2$, SO_2R^6 , $N(R)SO_2R^6$, $C(O)R^6$, CN, or $SO_2N(R^6)_2$;

each R^6 is independently selected from R or Ar;

R^7 is selected from R^6 , $(CH_2)_wOR^6$, $(CH_2)_wN(R^4)_2$, or $(CH_2)_wSR^6$; and

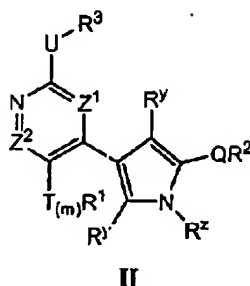
each w is independently selected from 0-4;

provided that:

when R^1 is hydrogen, U is $-NH-$, and R^3 is an optionally substituted phenyl ring, then Q is
 other than a valence bond.

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2. (Original) The compound according to claim 1, wherein said compound is of formula II:



or a pharmaceutically acceptable salt thereof.

3. (Original) The compound according to claim 2, wherein:

R^1 is selected from hydrogen, $N(R^4)_2$, OR^6 , 3-6 membered carbocyclyl, or an optionally substituted group selected from C_{1-6} aliphatic or a 5-6 membered aryl ring having 0-4 heteroatoms independently selected from nitrogen, oxygen, or sulfur;

R^2 is selected from $(CH_2)_yR^5$, $(CH_2)_yCH(R^5)_2$, $(CH_2)_yCH(R^7)CH(R^5)_2$, or $(CH_2)_yN(R^4)_2$;

R^3 is selected from hydrogen, $CH(R^7)R^5$, 3-7 membered carbocyclyl or an optionally substituted group selected from C_{1-4} aliphatic, a 3-6 membered heterocyclic ring having 1-3 heteroatoms independently selected from nitrogen, oxygen, or sulfur, or a 5-6 membered aryl or heteroaryl ring having 1-3 heteroatoms independently selected from nitrogen, oxygen, or sulfur; and

U is selected from a valence bond, $-CH_2-$, $-O-$, $-NR-$, $-NHCO-$, or $-NHCO_2-$.

4. (Original) The compound according to claim 3, wherein R^2 is $(CH_2)_yR^5$, $(CH_2)_yCH(R^5)_2$, or $(CH_2)_yCH(R^7)CH(R^5)_2$.

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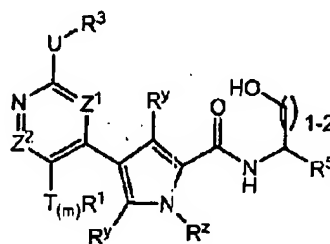
5. (Original) The compound according to claim 3, wherein Q is -C(O)N(R)- or -C(O)O-.

6. (Original) The compound according to claim 2, wherein R³ is 3-7 membered carbocyclyl or an optionally substituted group selected from C₁₋₄ aliphatic, a 3-6 membered heterocyclic ring having 1-3 heteroatoms independently selected from nitrogen, oxygen, or sulfur, or a 5-6 membered aryl or heteroaryl ring having 1-3 heteroatoms independently selected from nitrogen, oxygen, or sulfur.

7. (Original) The compound according to claim 2, wherein R³ is CH(R⁷)R⁵.

8. (Original) The compound according to claim 2, wherein R³ is a 3-6 membered heterocyclic ring having 1-3 heteroatoms independently selected from nitrogen, oxygen, or sulfur.

9. (Original) The compound according to claim 1, wherein said compound has the formula III:

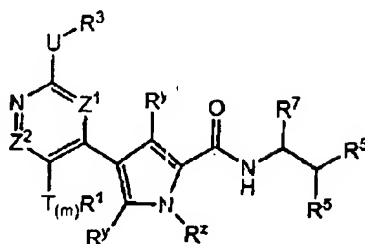


III

or a pharmaceutically acceptable salt thereof.

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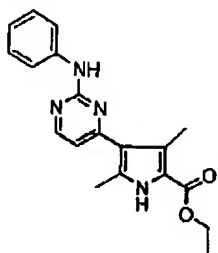
10. (Original) The compound according to claim 1, wherein said compound has the formula IV:



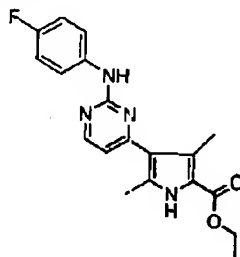
IV

or a pharmaceutically acceptable salt thereof.

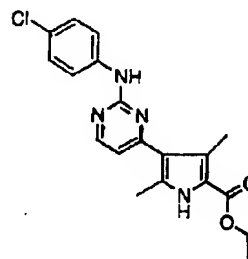
11. (Original) The compound according to claim 1, wherein said compound is selected from the group consisting of:



I-1

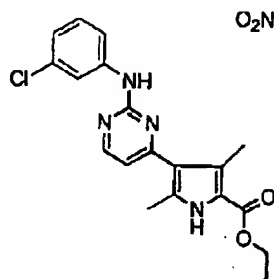


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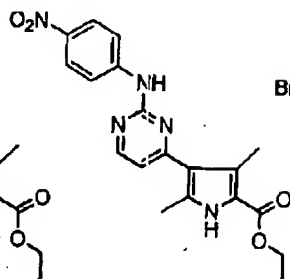


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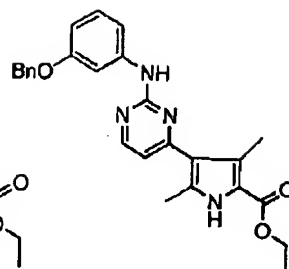
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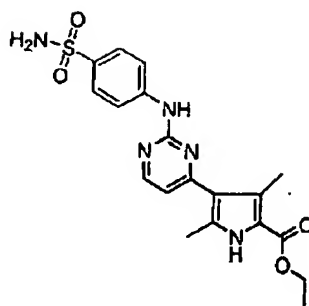
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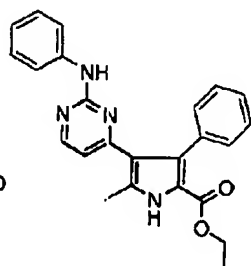
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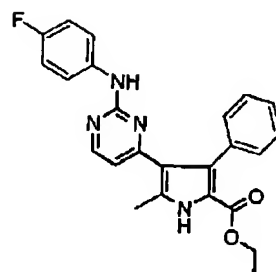
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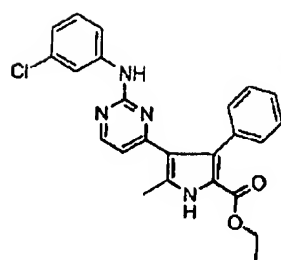
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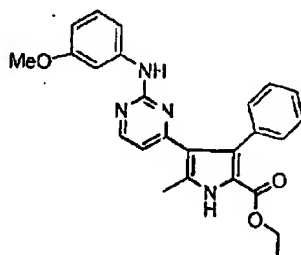
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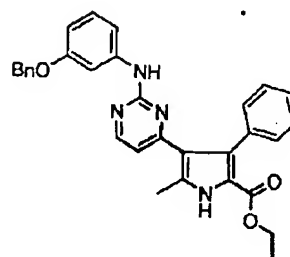
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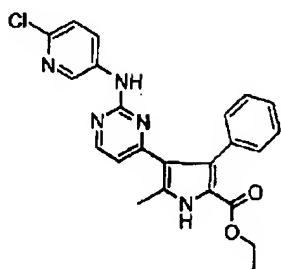


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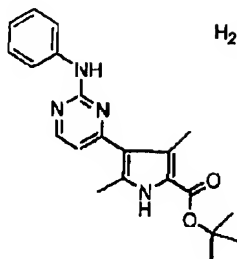


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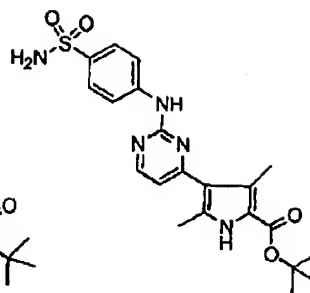
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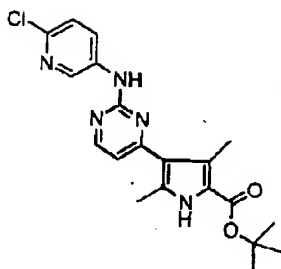
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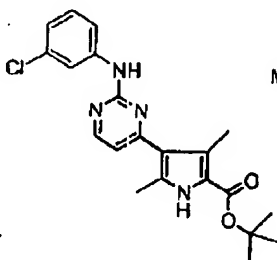
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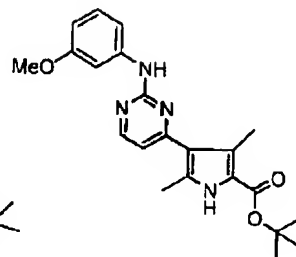
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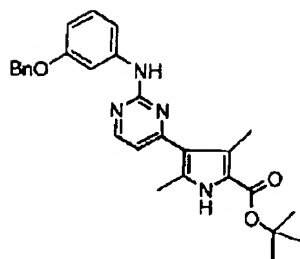
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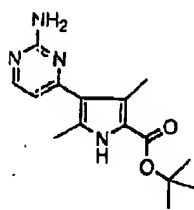
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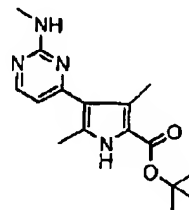
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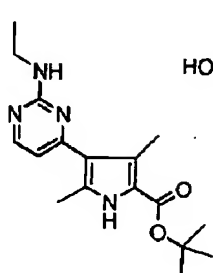


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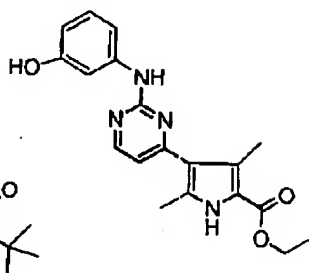


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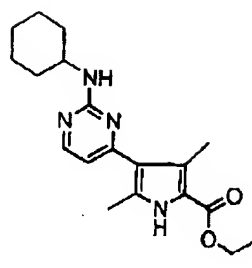
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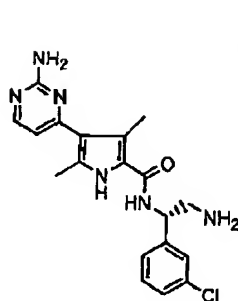
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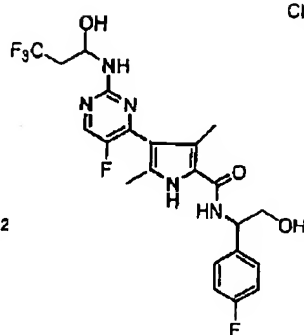
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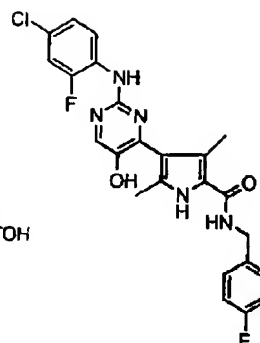
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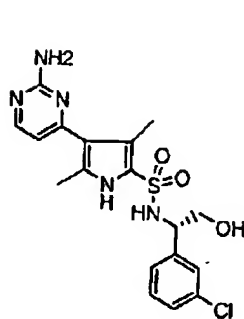
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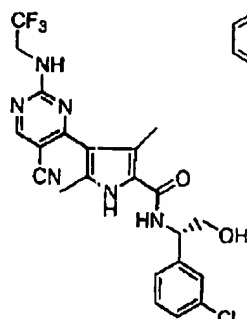
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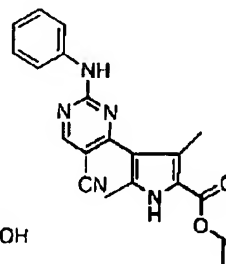
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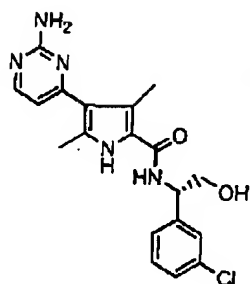


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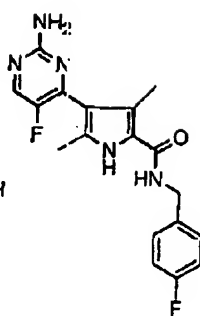


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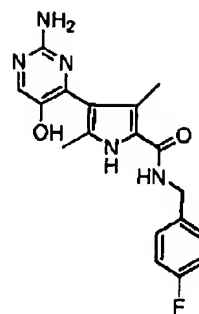
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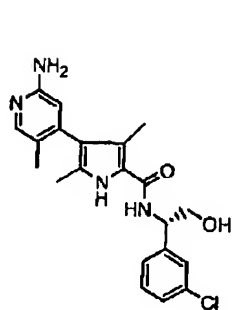
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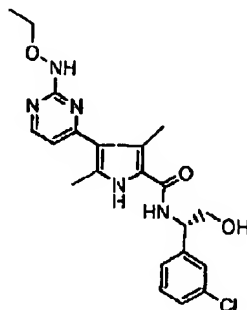
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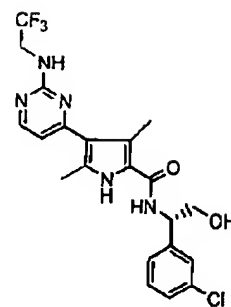
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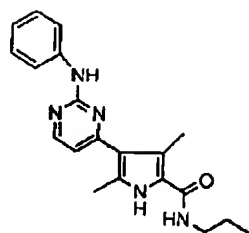
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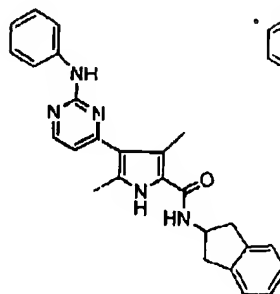
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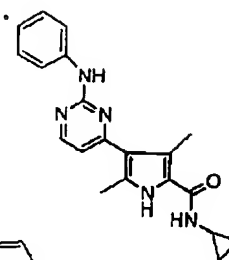
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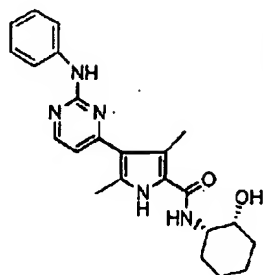


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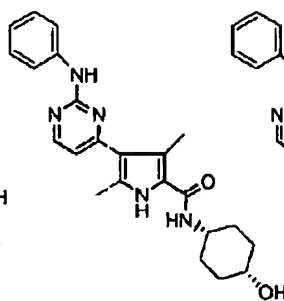


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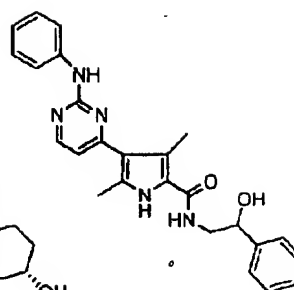
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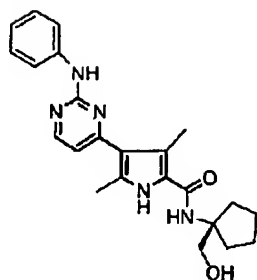
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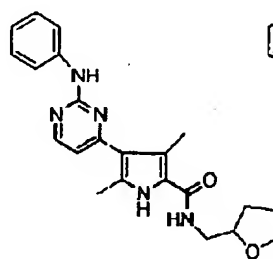
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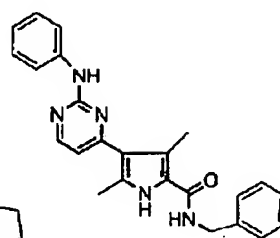
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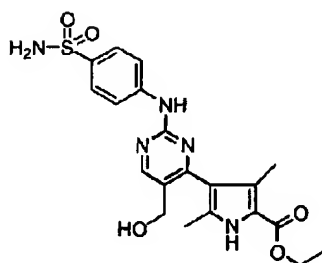
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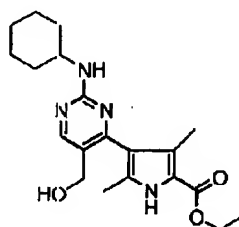
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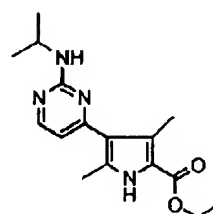
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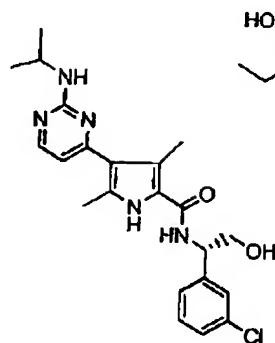


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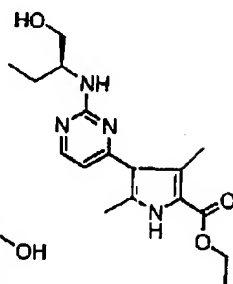


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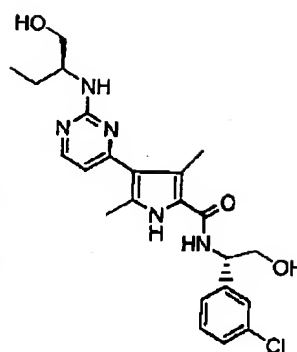
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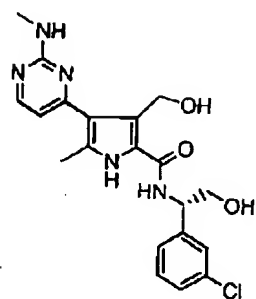
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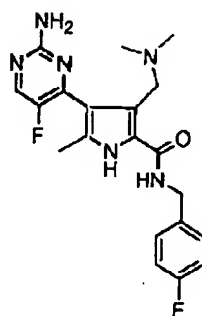
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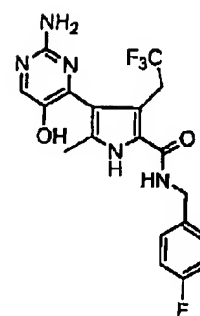
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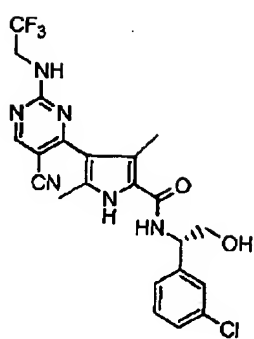
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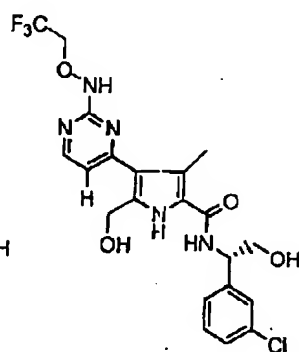
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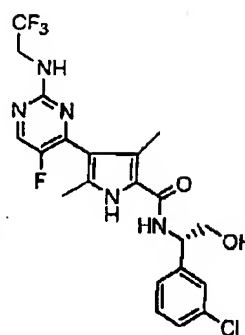
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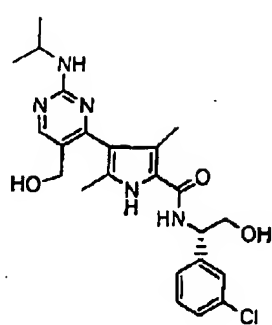


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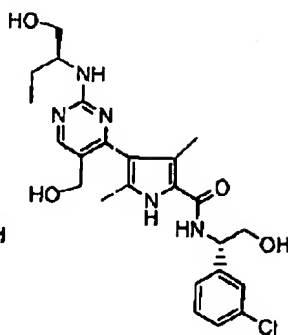


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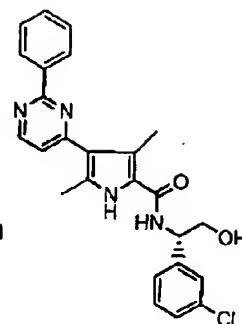
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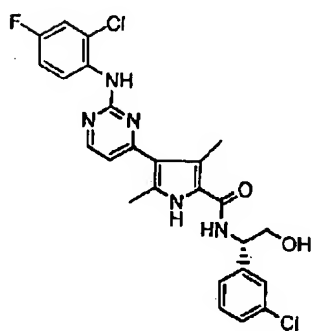
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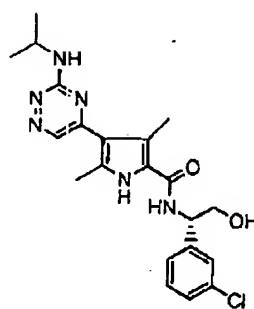
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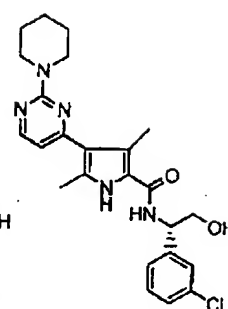
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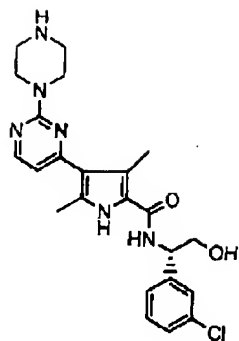
I-61



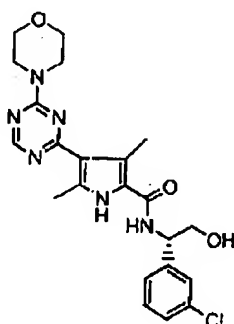
I-62



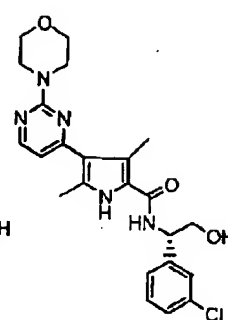
I-63



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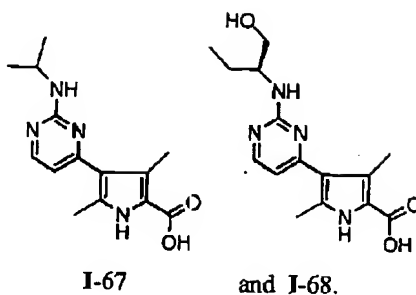


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12. (Original) A composition comprising an effective amount of a compound according to claim 1, and a pharmaceutically acceptable carrier, adjuvant, or vehicle.

13. (Canceled).

14. (Currently amended) The composition of claim 12, additionally comprising a therapeutic agent selected from a chemotherapeutic or anti-proliferative agent selected from mechlorethamine, chlorambucil, cyclophosphamide, melphalan, ifosfamide, methotrexate, 6-mercaptopurine, 5-fluorouracil, cytarabine, gemcitabine, vinblastine, vincristine, vinorelbine, paclitaxel, etoposide, irinotecan, topotecan, doxorubicin, bleomycin, mitomycin, carmustine, lomustine, cisplatin, carboplatin, asparaginase, tamoxifen, leuprolide, flutamide, megestrol, imatinib (Gleevec™), adriamycin, dexamethasone, or cyclophosphamide, an anti-inflammatory agent, an immunomodulatory or immunosuppressive agent, an agent for treating a neurological disorder, an agent for treating cardiovascular disease, an agent for treating destructive bone disorders, an agent for treating liver disease, an anti-viral agent, an agent for treating blood disorders, an agent for treating diabetes, or an agent for treating immunodeficiency disorders.

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15. (Withdrawn, currently amended) A method of inhibiting ERK2, JNK3, SRC, Aurora2, or GSK3 protein kinase activity in a biological sample selected from a cell culture, saliva, urine, feces, semen, tears, or an extract thereof, which method comprises contacting said biological sample in vitro with:

- a) a composition according to claim 12; or
- b) a compound according to claim 1.

16. (Canceled).

17. (Withdrawn, currently amended) A method of treating or lessening the severity of a disease, condition or disorder, in a patient in need thereof, selected from a proliferative disorder selected from breast cancer, colon cancer, kidney carcinoma, lung cancer, melanoma, ovarian cancer, pancreatic cancer, or prostate cancer, ~~a cardiac disorder, a neurodegenerative disorder, an autoimmune disorder, a condition associated with organ transplant, an inflammatory disorder, an immunologically mediated disorder, or a bone disorder,~~ comprising the step of administering to said patient:

- a) a composition according to claim 12; or
- b) a compound according to claim 1.

18. (Withdrawn, currently amended) The method according to claim 17, comprising the additional step of administering to said patient an additional therapeutic agent selected from a chemotherapeutic or anti-proliferative agent selected from mechlorethamine, chlorambucil, cyclophosphamide, melphalan, ifosfamide, methotrexate, 6-mercaptopurine, 5-fluorouracil, cytarabine, gemcitabine, vinblastine, vincristine, vinorelbine, paclitaxel, etoposide, irinotecan, topotecan, doxorubicin, bleomycin, mitomycin, carmustine, lomustine, cisplatin, carboplatin, asparaginase, tamoxifen, leuprolide, flutamide, megestrol, imatinib (Gleevec™), adriamycin, dexamethasone, or cyclophosphamide, an anti-inflammatory agent,

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~~an immunomodulatory or immunosuppressive agent, a neurotrophic factor, an agent for treating cardiovascular disease, an agent for treating destructive bone disorders, an agent for treating liver disease, an anti-viral agent, an agent for treating blood disorders, an agent for treating diabetes, or an agent for treating immunodeficiency disorders, wherein:~~

- ~~(a) said additional therapeutic agent is appropriate for the disease being treated; and~~
- ~~(b) said additional therapeutic agent is administered together with said composition as a single dosage form or separately from said composition as part of a multiple dosage form.~~

19-29. (Canceled)